

WHAT IS CLAIMED IS:

1. A method for screening compounds useful for the treatment of proliferative and
5 differentiative disorders comprising contacting a compound with a cell or a cell extract
expressing Skp2 and one or both of p27 and Cks1, and detecting a change in the activity of
Skp2.

2. The method of Claim 1 wherein the change in the activity of Skp2 is detected by
detecting a change in the interaction of Skp2 with either p27 or Cks1.
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3. The method of Claim 1 wherein the change in the activity of Skp2 is detected by
detecting a change in the ubiquitination of p27 or degradation of p27 or Cks1.

4. A method for screening compounds useful for the treatment of proliferative and
15 differentiative disorders comprising adding a compound in a purified system containing Skp2
and one or both of p27 and Cks1, and detecting a change in the activity of Skp2.

5. The method of Claim 4 wherein the change in the activity of Skp2 is detected by
detecting a change in the interaction of Skp2 with either p27 or Cks1.
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6. The method of Claim 4 wherein the change in the activity of Skp2 is detected by
detecting a change in the ubiquitination of p27 or degradation of p27 or Cks1.

7. A method for screening compounds useful for the treatment of proliferative and
25 differentiative disorders comprising adding a compound in a purified system containing Skp2
and one or both of a polypeptide corresponding to the carboxy terminus of the human p27
chain having the sequence NAGSVEWTPKKPGLRRRQT with or without a
phosphothreonine at position 187 and Cks1, and detecting a change in the activity of Skp2.

8. The method of Claim 7 wherein the change in the activity of Skp2 is detected by
detecting a change in the interaction of Skp2 with either the polypeptide or Cks1.
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9. The method of Claim 7 wherein the change in the activity of Skp2 is detected by
detecting a change in the ubiquitination of the polypeptide or degradation of the polypeptide
35 or Cks1.